Claims

1. A head support ~~(2)~~ for stopping ~~a~~ snoring of a sleeping individual, ~~wherein the head support (2) has a head resting surface (K) for the head of a sleeping individual to rest on,~~ comprising:
   - a head resting surface for the head of a sleeping individual to rest on;
   - an active layer ~~(A)~~ with an arrangement of neighboring deforming elements ~~(21,. 21a, 21b)~~ for controlling the height of the head support ~~(2)~~ section by section; and
   - a sensing layer ~~(B)~~ which is arranged in an interior of the head support between the head resting surface ~~(K)~~ and the active layer to detect a position of the head resting on the head resting surface, ~~(K)~~ the sensing layer substantially covering the active layer, wherein the sensing layer has individual sensing sections which detect the position of a head on the head support by identifying one or more of the individual sensing sections on which the head of the sleeping individual rests, so that the deforming elements which are needed to change the position of the head are identifiable.

2. The head support ~~(2)~~ according to claim 1, wherein a stiffening element is provided to counteract a deflection of the active layer ~~(A)~~ in the direction of a weight force of the head resting on the head resting surface ~~(K)~~.

3. The head support ~~(2)~~ according to claim 2, wherein the stiffening element comprises a backing layer ~~(C)~~ which is arranged on the side of the active layer ~~(A) opposing~~ which faces away from the sensing layer ~~(B) to back the active layer (A)~~.

4. The head support ~~(2)~~ according to claim 3, wherein the active layer ~~(A)~~ is attached to the backing layer ~~(C) particularly~~ by one of adhering or ~~by~~ sewing,

and/or ~~wherein~~ the active layer ~~(A)~~ is attached to the sensing layer ~~(B)~~ ~~particularly~~ by one of adhering or ~~by~~ sewing.

5. The head support ~~(2)~~ according to claim 3 ~~or 4~~, wherein the backing layer ~~(C)~~ is sandwiched between a base layer ~~(D)~~ and the active layer ~~(A)~~, wherein the base layer ~~(D)~~ has a lower stiffness than the backing layer ~~(C)~~.

6. The head support ~~(2)~~ according to claim 5, wherein a comfort layer ~~(E)~~ is sandwiched between the head resting surface ~~(K)~~ and the sensing layer ~~(B)~~ ~~wherein~~ and the base layer ~~(D)~~ and the comfort layer ~~(E)~~ together fully enclose the backing layer ~~(C)~~, the active layer ~~(A)~~ and the sensing layer ~~(B)~~.

7. The head support ~~(2)~~ according to ~~any of the~~ claim~~s~~ 1 ~~to 6~~, wherein the deforming elements ~~(21, 21a, 21b)~~ of the active layer ~~(A)~~ comprise chambers fillable with a medium, wherein the medium is supplied via a conduct ~~(8)~~ by ~~means of~~ a pump provided external to the head support, ~~(2) wherein~~ and a sound-dampening device ~~(10)~~ is arranged on or in the conduct ~~(8)~~ to dampen vibrations in the medium.

8. The head support ~~(2)~~ according to ~~any of the~~ claim~~s~~ 1 ~~to 7~~, wherein the sensing ~~layer (B) comprise sensing sections~~sections include ~~with~~ one or more resistive, capacitive pressure sensors, one or more pressure-sensitive contact elements or one or more temperature sensors, ~~wherein~~ and the sensing sections are arranged so that the position of the head is detectable by identifying one or more of the sensing sections on which the head rests/lies on.

~~9. The head support (2) according to any of the claims 1 to 8, wherein the sensing layer (B) has sensing sections to determine the position of the head on the head support (2) by identifying one or more of the sensing sections on which the head rests/lies on, so that the deforming elements (21, 21a, 21b) necessary for changing the position of the head are identifiable.~~

~~10.~~9. A system comprising:

- the head support according to ~~any of the~~ claim~~s~~ 1 ~~to 9,~~;

- a control unit in communication with the sensing layer, the sensing layer supplying the control unit with a signal which identifies one or more of the sensing sections on which pressure is being exerted by the head of the sleeping individual to cause the control unit to actuate one or more of the appropriate deforming elements ~~of the active layer depending on a position of the head of the head resting surface detected by means of the sensing layer~~ to change ~~the position and/or the orientation~~ a height of the head resting surface.

~~11.~~10. The system according to claim ~~10~~ 9, wherein the control unit ~~(4) is configured to~~ detects ~~the~~ snoring of an individual resting on the head support ~~(2)~~ and ~~to~~ actuates the deforming elements ~~(21, 21a, 21b)~~ to change the position and/or the orientation of the head when the snoring has been detected.

11. An arrangement for stopping snoring of a sleeping individual, comprising:

a control unit;

a head support comprising:

an upper area defining a resting surface thereon;

an active layer including a plurality of individual height-adjusting elements arranged along said head support beneath said head resting surface, each said height adjusting element being actuable by said control unit to cause a change in height of said head resting surface; and a sensing layer in communication with said control unit and disposed within an interior of said head support between said head resting surface and said active layer, said sensing layer substantially covering said active layer and having a plurality of individual sensing elements, each said sensing element being disposed to detect pressure exerted by a head of the sleeping individual resting on a portion of said head resting surface corresponding to said sensing element, said sensing layer supplying said control unit with a signal which identifies one or more of said sensing elements on which pressure is being exerted by the head of the sleeping individual, said signal causing said control unit to actuate one or more of said height adjusting elements

disposed substantially beneath said portion of said head resting surface to change a height thereof.

12.The arrangement according to claim 11, wherein each said sensing element is disposed to detect pressure exerted by a head of the sleeping individual resting on a portion of said head resting surface which is located directly above said sensing element.

13.The arrangement according to claim 11, wherein said active layer and said sensing layer are fully enclosed and contained within said head support beneath said head resting surface.

14.The arrangement according to claim 11, wherein each said height-adjusting element comprises an element which is deformable in shape upon actuation by said control unit to change a height of said head resting surface.

15.The arrangement according to claim 11, further including a backing layer disposed on a side of said active layer which faces away from said sensing layer, said backing layer being of a stiffness sufficient to counteract a deflection of said active layer in a direction away from said head resting surface and corresponding to a direction of a force exerted by the head of the sleeping individual acting on said head resting surface.

16.The arrangement according to claim 15, further including a comfort layer disposed between said head resting surface and said sensing layer and a base layer of a lesser stiffness than said backing layer, said backing layer being disposed between said active layer and said base layer, and said base layer and said comfort layer together fully enclosing said backing layer, said active layer and said sensing layer.

17.The arrangement according to claim 11, wherein said plurality of height-adjusting elements includes a plurality of first height-adjusting elements disposed in side-by-side adjacent relation with one another in a row along said head support beneath said head resting surface, and at least one second height-

adjusting element disposed adjacent said first height-adjusting elements and beneath said head resting surface, said first height-adjusting elements when actuated by said control unit actively tilting the head of the sleeping individual in a first direction and said second height-adjusting element when actuated by said control unit actively tilting the head of the sleeping individual in a second direction which is transverse to the first direction.

18. A head support for stopping snoring of a sleeping individual, said head support comprising:

an upper surface defining a head resting surface thereon;

an active layer including a plurality of individual height adjusting elements arranged along said head support beneath said head resting surface, each said height-adjusting element being configured to cause a change in height of said head resting surface; and

a sensing layer disposed within an interior of said head support between said head resting surface and said active layer, said sensing layer substantially covering said active layer and including a plurality of individual sensing elements, each said sensing element detecting pressure exerted by a head of the sleeping individual resting on a portion of said head resting surface corresponding to said sensing element to actuate one or more of said height-adjusting elements disposed substantially beneath said portion of said head resting surface to change a height thereof.

19. The system comprising the head support of claim 18, and a control unit in communication with said sensing layer, said sensing layer supplying said control unit with a signal which identifies one or more of said sensing elements on which pressure is being exerted by the head of the sleeping individual, said signal causing said control unit to actuate one or more of said height-adjusting elements disposed substantially beneath said portion of said head resting surface to change a height thereof.